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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,311	08/10/2001	Mohammad Mehdiانpour	P01,0114	8475

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EXAMINER

NGUYEN, TAI V

ART UNIT PAPER NUMBER

3729

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/913,311

Applicant(s)

MEHDIANPOUR ET AL.

Examiner

Tai Van Nguyen

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-24 and 26-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-24 and 37-43 is/are rejected.
- 7) ☒ Claim(s) 26-36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The applicants' amendment filed 09/17/2003 (paper No. 5) has been fully considered and made of record.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19-24 and 26-36 are rejected under U.S.C. 112 second paragraph, as being indefinite for failing to particular point out and distinctly the subject matter which applicants regard as their invention.

In claim 19, it is unclear from the disclosure what is meant by the term "fashion" (first occurrence at line 16 and the second occurrence at 17), as this refers to the phrase of "grid fashion" and "step-by-step fashion".

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.


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4. Claims 19-24 and 37-43 as best understood are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5743005 to Nakao.

As applied to claim 19, Nakao teaches movable fitting head 9 for handling the components 11, the head including at one least gripper 15 and at least one storage element 1 including a plurality of storage spaces 3 for storing the electrical components; components, wherein the at least one storage element is separate from the at least one gripper (15) whereby component picked up the at least one gripper are depositable at the plurality of storage spaces (3) of the at least one storage element such that the deposited components are removable from the plurality of storage spaces via the at least one gripper, and wherein the plurality of storage spaces are distributed in a grid fashion on a sliding part mounted on the head (9), the sliding part (8a) being displaceable in step-by-step fashion, such that when the sliding part is displaced, the plurality of storage spaces are displaced successive (see Fig. 7).

Regarding claim 20, Nakao teaches components 11 are held at the holding (9) end of the at least one gripper 15, the holding end being movable transversely with respect to a placement direction of the component into a transfer position assigned to the transfer station 21 on the fitting head 9 and the plurality of storage spaces 3 in the fitting head 9 being successively displaced to the transfer station 21 (see Fig. 2).

Regarding claim 21, Nakao teaches at least one gripper 15 is mounted on the pivoting element 8 of the fitting head 9 and holding end pivoted transversely with respect to the placement direction, between various stations i. e. a placement station 29 and the transfer station 21, via the pivoting element 8 (see Fig. 7).



Regarding claim 22, Nakao teaches at least one gripper 15 is mounted on the pivoting element 8 such that at least one gripper is displaceable longitudinally in the placement direction (see Figs 6 and 7).

Regarding claim 23, Nakao teaches the holding end in the transfer station 21 is displaceable longitudinally in a direction relative to one of the plurality of storage spaces 3 (see reel, 2).

Regarding claim 24, Nakao teaches at least one gripper is a suction device 15 and a pressure condition in the suction device in the transfer position is controlled such that a holding force is greater than or less than a holding force exerted by one of the plurality of storage spaces. Note: The electronic component is attached to the reel 2 as the suction device's force is able to remove the part from the storage unit. Hence, the force required to keep the electronic component on the reel is overcome by the suction device pressure.

As applied to claim 37, Nakao teaches an apparatus for handling electrical components, comprising: an equipping head (9) for handling; the components (11), the head being movable between feed devices carrying the electrical components and a substrate (see Fig. 2) the head including, at least one storage element (1) with a plurality of storage spaces (3), and at least one gripper (15) for removing the electrical components from the feed devices (9) and for attaching the electrical components to the substrate (5), the at least one storage element and the at least one gripper each being relatively movable with respect to the other within the head (see Fig. 2), wherein the at least one gripper is further for depositing components (5a), picked up from the feeding

devices, to the plurality of storage spaces (3) and for subsequently extracting components from the storage spaces and mounting them on the substrate.

As applied to claim 38, Nakao teaches wherein the number of storage spaces is greater than the number of grippers (see Fig. 7).

As applied to claim 39, Nakao teaches wherein the components (11) are held at a holding end of the at least one gripper (15), the holding end being movable transversely with respect to a placement direction of the components into a transfer position assigned to a transfer station (8) on the head (9), and the plurality of storage spaces (5a) in the head being successively displaced to the transfer station.

As applied to claim 40, Nakao teaches wherein the at least one gripper (15) is mounted on a pivoting element of the head (9), and the holding end is pivotable transversely, with respect to the placement direction, between a placement station and the transfer station via the pivoting element (see Fig. 7).

As applied to claim 41, Nakao teaches wherein the at least one gripper is mounted in a guide (motor 14 is Fig. 2) in the pivoting element, such that the at least one gripper is displaceable longitudinally in the placement direction.

As applied to claim 42, Nakao teaches wherein the holding (9) end in the transfer station is displaceable longitudinally in a direction relative to one of the plurality of storage spaces (3).

As applied to claim 43, Nakao teaches wherein the at least one gripper 15 is a suction device, and a pressure condition in the suction device in a transfer position is controlled such that a holding force is greater than or less than a holding force exerted

by one of the plurality of storage spaces 5a. Note: The electronic component is attached to the reel 2 as the suction device's force is able remove the part from the storage unit. Hence, the force required to keep the electronic component on the reel is over come by the suction device pressure.

Allowable Subject Matter

5. Claims 26-36 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicants' argument filed 09/17/03 have been fully considered but they are not persuasive.

In regards to the merits Nakao et al, the applicants contend that Nakao no longer applies to claim 19 because the limitations of canceled Claim 25 are now incorporated in to Claim 19. The examiner most respectfully disagrees to the extent that Claim 19 has been amended not only to add limitations of Claim 25, but to delete various other limitations affecting the overall scope of the claims. For example, the limitations of "said at least one gripper ... on said substrate" (lines 6-8 of Claim 19 in the amendment filed 4/8/02, paper No. 3) have been completely removed from Claim 19. Thus, a new ground of rejection is warranted and fully discussed above with respect to Nakao et al.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tai Van Nguyen whose telephone number is 703-308-1791. The examiner can normally be reached on M-F (7:30-4:30).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

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Tn.
November 13, 2003



A. DEXTER TUGBANG
PRIMARY EXAMINER